

# REMARKS

This Amendment responds to the office action mailed February 26, 2003. Currently claims 1-14 are pending. The office action:

- a) requested affirmation of an election of species made with traverse in a phone call with the attorney of record;
- b) noted that a certified copy of a foreign priority document has not been filed;
- c) objected to the arrangement of the specification;
- d) rejected claims 2-4 and 7-9 under 35 U.S.C. § 112, second paragraph as being indefinite and failing to particularly point out and distinctly claim the subject matter of the invention;
- e) rejected claims 1-4, 6-8, 13 and 14 under 35 U.S.C. § 102 as being anticipated by Atkins et al. (WO 99/19724); and
- f) rejected claims 1-4, 6-9, 13 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Atkins et al. in view of Hajduk et al. (U.S. Pat. No. 6,371,640).

With respect to the request for affirmation of an election of species, part (a) above, Applicant affirms with traverse the election of species made by the attorney of record, and reserves the right to further prosecute claims 5, 10, 11 and 12.

With respect to a certified copy of the foreign priority document, part (b) above, a certified copy will be provided separately.

With respect to the objection to the arrangement of the specification, part (c) above, and in accordance with 37 C.F.R. 1.125, a substitute specification is included in Appendix A and a marked up version of the substitute specification is included in Appendix B. The specification has been reorganized to correspond to the preferred Arrangement of the Specification and a summary of the invention section has been added. No new matter has been added to the application with these changes.

With respect to the rejection of claims 2-4 and 7-9 under 35 U.S.C. § 112, ¶ 2, part (d) above, Applicants have amended these claims. Specifically, claim 2 has been amended to emphasize that the isolated cavities are part of a reaction plate and are realized as borings. Claim 3 has been amended to clarify that the solids produced in the reactor bottom plate are separated from the supernatant liquid phase and the remaining solid phase is calcined. Claim 4 has been

amended to overcome the antecedent basis problem and to clarify that the reactor bottom plate comprises a material that scatters X-rays elastically. Claim 7 has been amended to remove the term "preferably" and form a Markush group. Finally, claim 9 has been amended to indicate that reflecting microarea X-ray diffraction is employed to investigate the materials library deposited onto the reactor bottom plate.

Applicant respectfully requests the Examiner to reconsider the rejection of claims 1-4, 6-8, 13 and 14 under 35 U.S.C. § 102 as being anticipated by Atkins et al. ("Atkins"), part (e) above.

Claim 1 recites a reactor for preparing a materials library. Atkins does not disclose a reactor for preparing a materials library. The reactor of Atkins is a reactor for analyzing catalytic reaction products by the REMPI method and is not a reactor for preparing a materials library.

Claim 1 also recites reaction conditions of "temperatures of up to 1000 °C and internal pressures of up to 1000 bar." Atkins does not disclose reaction conditions of temperatures of up to 1000 °C and internal pressures of up to 1000 bar.

For these reasons, claim 1 is not anticipated by Atkins under 35 U.S.C. § 102. Each of claims 2-4, 6-8, 13 and 14 depends from claim 1, and recites limitations that distinguish the invention further from the disclosure of Atkins.

Applicant also requests the Examiner to reconsider the rejection of claims 1-4, 6-9, 13 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Atkins in view of Hajduk et al. ("Hajduk"), part (f) above.

Pending claims 1-3, 13 and 14 do not recite X-ray diffraction and, thus, cannot not made obvious by this combination.

Claims 4 and 7-9 recite elements of the invention related to X-ray diffraction. Atkins goes to great lengths to create systems and methods that allow for REMPI analysis and does not mention any other analytical techniques that would be compatible with the structure required to perform the disclosed REMPI analysis. For example, Atkins creates individual chambers that integrate various passages, reaction zones, electrodes, and laser radiation access ports in an effort

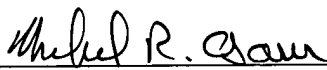
to detect catalytic products. This teaches away from the use of X-ray diffraction by exclusively focussing on the REMPI detection method.

Additionally, the Atkins reactor system would be incompatible with a Hajduk X-ray analysis because, as shown in Fig. 24, a cover is bonded to the base layer. With a cover bonded to the base layer an operator of the Hajduk system would be unable to coordinate catalyst locations. Further, Atkins does not disclose that the cover layer would transmit X-ray beams. Upon finding and studying these structures in the Atkins disclosure, a person skilled in the art would have no motivation to separate the library formation method of Atkins from the physical structure required for the REMPI analysis, and then to adopt the X-ray analysis of Hajduk as a substitute for the REMPI analysis. Such an overhaul of the Atkins disclosure would not have been made obvious by these references under 35 U.S.C. §103.

Finally, neither Atkins, as discussed above related to the § 102 rejection, nor Hajduk teaches or suggests either a reactor for preparing a materials library or reaction conditions of "temperatures of up to 1000 °C and internal pressures of up to 1000 bar." Because all the limitations of the claims are not taught or suggested by the combined references, the claimed invention, as a whole, would not have been made obvious under § 103.

For these reasons, Applicants respectfully submit that claims 1-4, 6-9, 13 and 14, are allowable and allowance is requested.

Respectfully submitted,

  
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